Buddy's key challenge
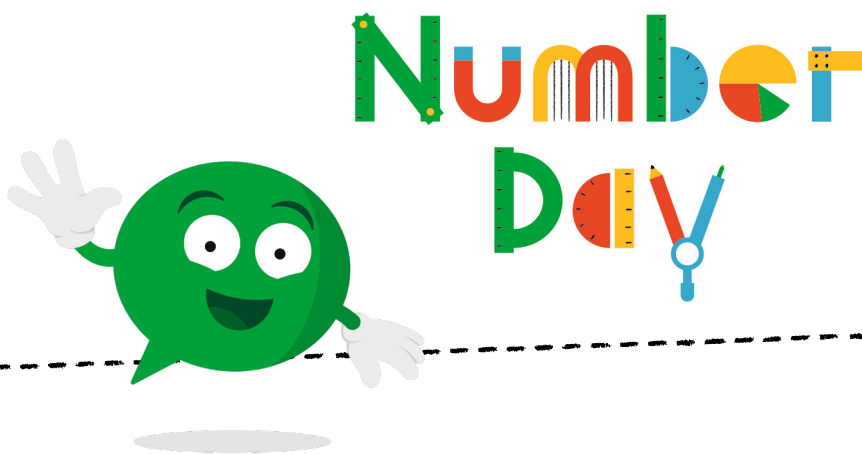
A SPACE ADVENTURE

Number Day

What is Buddy's Key Challenge?

Buddy's Key Challenge is a game where pupils solve maths related puzzles to find pieces of a key. It can be played together by the whole class.

For each correct answer, the teacher can reveal the location of one piece of key that's hidden in the classroom. There are ten pieces that make up the key, like a jigsaw.

Once all the pieces have been found, the key can be used to unlock a spaceship door for Buddy to go on his mission to space. The school can meet Buddy before he goes.

The challenge could be timed and played across the year group or school, with times up on a leaderboard. The winners would be the class that puts the key together in the fastest time.
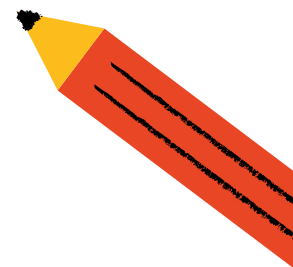
How to raise money

Pupils can be sponsored by family and friends to take part in Buddy's Key Challenge. Families can raise money via JustGiving or by using printed sponsor forms and paying via your school's chosen donation method. If you need support in setting up your school's JustGiving or ParentPay page, please follow the instructions on the Number Day resources page, or you can email us at **numberday@nspcc.org.uk**

What you need:

- A printout of the key, cut into ten pieces – one piece for each question

- A pupil handout for each table, or as required

- Colouring pencils

- A JustGiving page for the school or a printed sponsor form for each pupil/family, so parents can pay in money using ParentPay or the school's chosen donation option

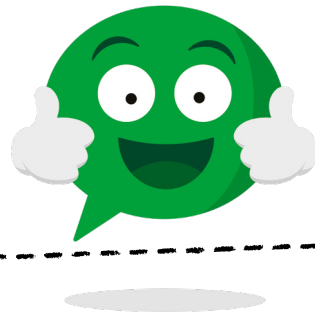- A timer (optional)

- A print out of Buddy

How to play:

1. Print out the image of the key and cut it into ten pieces.

2. Hide the pieces around the classroom.

3. Put Buddy in your chosen location in the school, such as the playground, the library, or just somewhere out of sight of the pupils.

4. Print out the pupil handouts and distribute. Choose one of the two sets of questions based on the age and/or ability of the children.

5. Read the story to set the scene.

6. Start the timer (if using).

7. Pupils must work together to solve the puzzles and questions. It may help to read each question out to the children as you work through the challenge.

8. For each question, give the children some time to come up with an answer. Ask the pupils to raise their hands if they think they have the correct answer, and choose one of them to share with the class. If they get it right, direct them to the hidden key piece. You could give them clues, or use the hot and cold technique.

9. Once pupils have answered ten questions correctly, all pieces are found and the key assembled, the class has succeeded and can meet Buddy before he goes on his mission to space!

10. Stop the timer (if using) and record how long it took the class to complete Buddy's Key Challenge.

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Story

Buddy needs to go on a mission to space to explore different planets. On his way to the spaceship, he popped into **<insert name of your school>** to say goodbye. He accidentally dropped the key to the spaceship door which broke into ten pieces.

Can you help Buddy by answering the questions to solve the clues and find the pieces of the key around your classroom? Once the key is put together, you'll be able to open the spaceship door and meet Buddy before he goes on his mission. You need to try to put the key together before the other classes. Good luck!
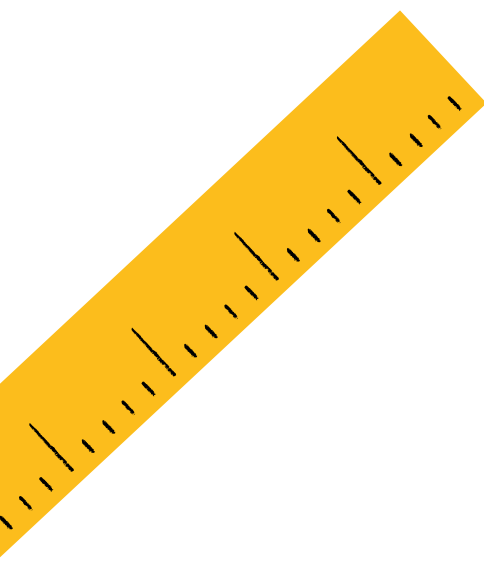
Answers

Pupil handout (A)

1. 5
2. 1
3. 7
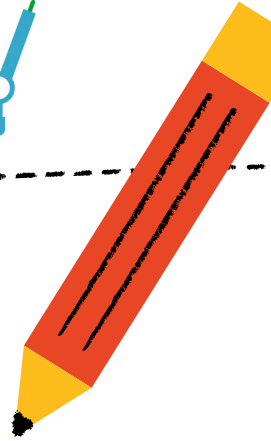4. 60
5. 5
6. 17p
7. 4
8. 9
9. 4
10. Hexagon

Pupil handout (B)

1. 12
2. 80p
3. £10
4. 6
5. 40
6. 65
7. 16
8. 1 = Purple, 2 = red, 3 = blue, 4 = green, 5 = yellow
9. 12
10.

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Pupil handout (A)

In some of the questions, instead of numbers we have used pictures of Buddy. Can you work these out?

1. 🟢 🟢 + 🟢 🟢 🟢 =

2. 🟢 🟢 🟢 🟢 🟢 - 🟢 🟢 🟢 🟢 =

3. Arman has 3 dogs and Holly has 4 dogs, how many dogs do they have altogether?

4. What number should come at the end of this number order? 10, 20, 30, 40, 50...?

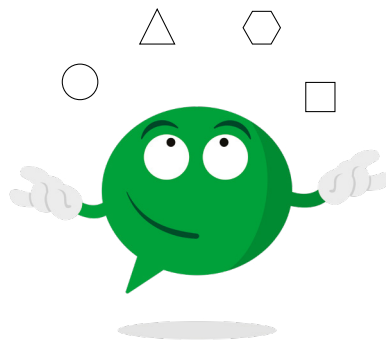5. Louise has 🟢 🟢 🟢 🟢 🟢 🟢 🟢 and gives away 🟢 🟢 🟢 . How many does she have left?

6. Avi has these coins (10p, 5p, 2p). How much money does he have altogether?

7. What is 2x2?

8. Jaya has 15 oranges and gives 6 away. How many oranges does Jaya have left?

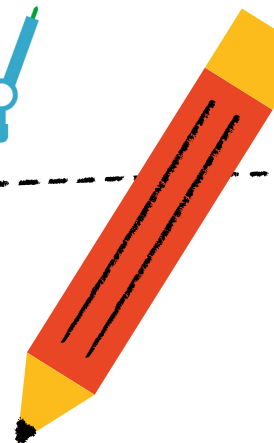9. If I had 10 sweets and ate 6 of them, how many would I have left?

10. Can you colour in the hexagon below?

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Pupil handout (B)

In some of the questions, instead of numbers we have used pictures of Buddy. Can you work these out?

1. =

2. If a yo-yo costs 20p and I buy 4, how much do I spend?

3. Alicia has £35 and Ferg has £15. Alicia gives Ferg some money and they now have the same amount. How much money did Alicia give Ferg?
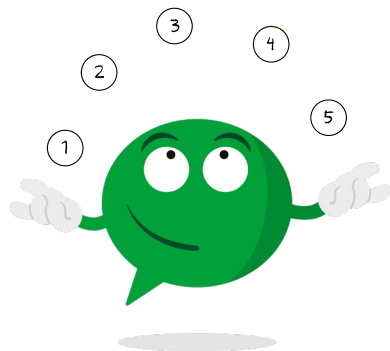
4. 6+_=12

5. Ryan is 29 today. How old will Ryan be in 11 years?

6. What is 70 take away 5?

7. Olivia has 20 sweets and eats 4 of them. How many sweets does Olivia have left?

8. Can you use the code to correctly colour in the balls Buddy is juggling with?

   1= Purple, 2= Red, 3 = Blue, 4 = Green, 5= Yellow

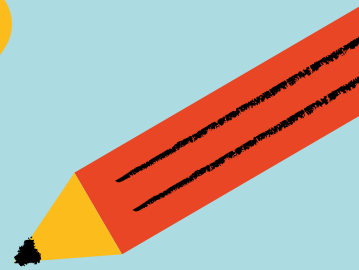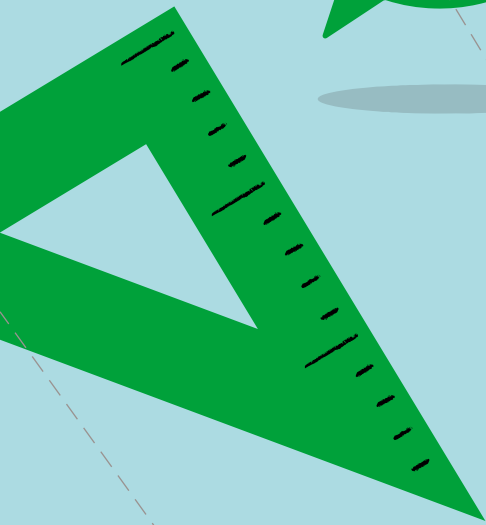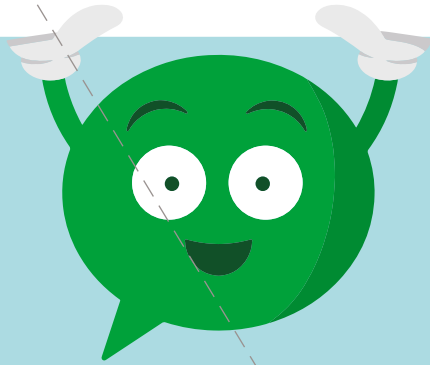9. What's next is this sequence? 4, 6, 8, 10

10. Find these words in the word search:

Buddy	Calculator	Twelve
Subtract	NSPCC	Four
Dice	Times	Childline
Divide	Seven	

```
C  B  H  C  N  S  P  C  C  N
A  C  S  U  B  T  R  A  C  T
L  H  H  I  J  F  E  G  L  D
C  L  F  I  B  U  D  D  Y  I
U  D  O  G  L  H  C  H  V  V
L  I  U  S  T  D  V  F  R  I
A  C  R  E  J  I  L  W  Q  D
T  E  F  V  V  M  M  I  S  E
O  T  W  E  L  V  E  E  N  R
R  Q  B  N  H  R  P  L  S  E
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